

1FW \$  
C.C.

PTO/SB/21 (09-04)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

## TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

Application Number	10713,565
Filing Date	11/13/2003
First Named Inventor	Harvey A. Fishman
Art Unit	1651
Examiner Name	Allison M. Ford
Attorney Docket Number	S02-296/US

### ENCLOSURES (Check all that apply)

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Fee Transmittal Form<br><input checked="" type="checkbox"/> Fee Attached<br><input type="checkbox"/> Amendment/Reply<br><input type="checkbox"/> After Final<br><input type="checkbox"/> Affidavits/declaration(s)<br><input type="checkbox"/> Extension of Time Request<br><input type="checkbox"/> Express Abandonment Request<br><input checked="" type="checkbox"/> Information Disclosure Statement<br><br><input type="checkbox"/> Certified Copy of Priority Document(s)<br><input type="checkbox"/> Reply to Missing Parts/<br>Incomplete Application<br><input type="checkbox"/> Reply to Missing Parts<br>under 37 CFR 1.52 or 1.53 | <input type="checkbox"/> Drawing(s)<br><input type="checkbox"/> Licensing-related Papers<br><br><input type="checkbox"/> Petition<br><input type="checkbox"/> Petition to Convert to a<br>Provisional Application<br><input type="checkbox"/> Power of Attorney, Revocation<br>Change of Correspondence Address<br><br><input type="checkbox"/> Terminal Disclaimer<br><br><input type="checkbox"/> Request for Refund<br><br><input type="checkbox"/> CD, Number of CD(s) _____<br><input type="checkbox"/> Landscape Table on CD | <input type="checkbox"/> After Allowance Communication to TC<br><br><input type="checkbox"/> Appeal Communication to Board<br>of Appeals and Interferences<br><br><input type="checkbox"/> Appeal Communication to TC<br>(Appeal Notice, Brief, Reply Brief)<br><br><input type="checkbox"/> Proprietary Information<br><br><input type="checkbox"/> Status Letter<br><br><input type="checkbox"/> Other Enclosure(s) (please identify<br>below): |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Remarks

### SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Lumen Intellectual Property Services, Inc.		
Signature			
Printed name	Ron Jacobs		
Date	8/10/05	Reg. No.	50,142

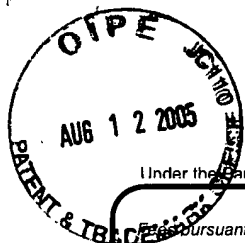
### CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

Signature			
Typed or printed name	Erica Hernandez	Date	8/10/05

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



PTO/SB/17 (12-04)

Approved for use through 07/31/2006. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Effective on 12/08/2004.

Pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

# FEE TRANSMITTAL

## For FY 2005

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ 180.00)

**Complete if Known**

Application Number	10/713,565
Filing Date	11/13/2003
First Named Inventor	Harvey A. Fishman
Examiner Name	Allison M. Ford
Art Unit	1651
Attorney Docket No.	S02-296/US

**METHOD OF PAYMENT** (check all that apply)☐ Check ☒ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): \_\_\_\_\_☐ Deposit Account Deposit Account Number: \_\_\_\_\_ Deposit Account Name: \_\_\_\_\_

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee☐ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☐ Credit any overpayments

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

**FEE CALCULATION****1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

**2. EXCESS CLAIM FEES**

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 or, for Reissues, each claim over 20 and more than in the original patent	50	25
Each independent claim over 3 or, for Reissues, each independent claim more than in the original patent	200	100
Multiple dependent claims	360	180

Total Claims	Extra Claims	Fee (\$)	Fee Paid (\$)	Multiple Dependent Claims	Fee (\$)	Fee Paid (\$)
_____ - 20 or HP = _____ x _____ = _____						
HP = highest number of total claims paid for, if greater than 20						
Indep. Claims	Extra Claims	Fee (\$)	Fee Paid (\$)			
_____ - 3 or HP = _____ x _____ = _____						
HP = highest number of independent claims paid for, if greater than 3						

**3. APPLICATION SIZE FEE**

If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
_____ - 100 = _____	_____ / 50 = _____	_____ (round up to a whole number) x _____ = _____		

**4. OTHER FEE(S)**

Non-English Specification, \$130 fee (no small entity discount)

Other: Information Disclosure Fee

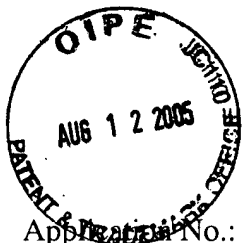
180.00

**SUBMITTED BY**

Signature		Registration No. (Attorney/Agent) 50,142	Telephone 650-424-0100
Name (Print/Type)	Ron Jacobs	Date	8/16/05

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



**In the United States Patent and Trademark Office**

App. No.: 10/713,565  
Filed: 11/13/2003  
Title: Artificial Synapse Chip  
Applicant(s): Harvey A. Fishman  
Examiner: Allison M. Ford  
Art Unit: 1651

Mailed 8/10/05  
Palo Alto, CA

**Information Disclosure Statement**

Commissioner of Patents and Trademarks  
Alexandria, VA 22313

Dear Sir or Madam:

Attached is a completed Form PTO-1449 and copies of the pertinent parts of the references cited thereon. It is requested that the document(s) on the enclosed form be made of record.

**Part I (Authority)**

This statement is filed pursuant to:

( ) 37 C.F.R. § 1.97(b).

This information disclosure statement is filed either (1) within three months of the filing date of the national application; (2) within three months of the date of entry of the national stage as set forth in 37 C.F.R. § 1.491 in an international application; (3) before the mailing date of a first office action on the merits, or (4) before the mailing of a first Office action after the filing of an RCE under § 1.114, whichever event occurs last.

Accordingly, this information disclosure statement requires no fee and no certification.

(X) 37 C.F.R. § 1.97(c).

This information disclosure statement is filed after the period specified in 37 C.F.R. § 1.97(b), but before the mailing date of either (1) a final action under 37 C.F.R. § 1.113 or (2) a notice of allowance under 37 C.F.R. § 1.311.

Accordingly, this information disclosure statement requires either the fee specified in 37 C.F.R. § 1.17(p) for submission of an information disclosure statement under 37 C.F.R. § 1.97(c) (\$180), or a certification according to 37 C.F.R. § 1.97(e).

( ) 37 C.F.R. § 1.97(d).

This information disclosure statement is filed after the period specified in 37 C.F.R. § 1.97(c).

Accordingly, this information disclosure statement requires the fee specified in 37 C.F.R. § 1.17(p) (\$180) and a certification according to 37 C.F.R. § 1.97(e).

**Conditional Petition**

It is respectfully requested that this information disclosure statement be considered, good cause being presented in Part III herein (certification). Please treat this paper as the required petition.

If this statement crosses in the mail with an office action, or is otherwise not in the indicated category of 37 C.F.R. § 1.97, it is respectfully requested that this statement be treated in the next appropriate category and made of record.

To the extent required, please treat this paper as a conditional petition for acceptance of the information disclosure statement.

08/15/2005 DENMANU1 00000010 10713565

01 FC:1806

180.00 OP

## Part II (Payment)

A check is enclosed as indicated:

- ☐ No fee is due.
- ☒ The fee specified in 37 C.F.R. § 1.17(p) for submission of an information disclosure statement under 37 C.F.R. § 1.97(c) or 37 C.F.R. § 1.97(d) is enclosed (\$180).

## Part III (Certification)

Pursuant to 37 C.F.R. § 1.97(e), I certify:

- ☒ No certification is necessary.
- ☐ Each item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the statement.
- ☐ No item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, or, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c), more than three months prior to the filing of the statement.

## Part IV (Additional Statement)

An additional statement regarding these items of information ☐ is, ☒ is not, enclosed.

Copies of the cited documents ☒ are enclosed, ☐ are of record in parent application Serial No. \_\_\_\_\_ and will be provided if the Examiner deems it convenient.

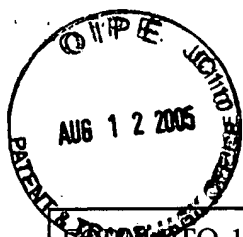
Dated:

8/10/05

Respectfully submitted,



Ron Jacobs  
Reg. No. 50,142  
2345 Yale Street, 2<sup>nd</sup> Floor  
Palo Alto, CA 94306  
tel: (650) 424-0100  
fax: (650) 424-0141



FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE		ATTY. DOCKET NO. S02-296/US	SERIAL NO. 10/713,565
LIST OF DOCUMENTS CITED BY APPLICANT (Use several sheets if necessary)		APPLICANT Harvey A. Fishman	
		FILING DATE 6/27/2003	GROUP 1651

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	RELEVANT INFORMATION
A				

**FOREIGN PATENT DOCUMENTS**

	2- letter code	DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION
					YES NO
B		WO 01/81552	11/1/2001	WIPO	Yes
C		WO 98/22819	5/28/1998	WIPO	No

**OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.)

D	Sandyk, R. "Paroxysmal Itching in Multiple Sclerosis During Treatment with External Magnetic Fields" (1994) Published in Int. J. Neurosci. 75(1-2): 65-71
E	Heuschkel, M.O. et al. "Buried Microchannels in Photopolymer for Delivering of Solutions to Neurons in a Network. " (1998) Published in Sensors and Actuators B 48: 356-361
F	Yeung, C.K. et al. "Modulation of the Growth and Guidance of Rat Brain Stem Neurons Using Patterned Extracellular Matrix Proteins." (2001) Published in Neuroscience Letters 301: 147-150
G	Maher, Michael et al. "The Neurochip: A New Multielectrode Device for Stimulating and Recording from Cultured Neurons" (1999) Published in Journal of Neuroscience Methods 87: 45-56
H	Jenkner, Martin et al. "Interfacng a Silicon Chip to Pairs of Smail Neurons Connected by Electrical Synapses" (2001) Published in Biol. Cybern 84: 239-249
I	Saneinejad, Samar et al. "Patterned Glass Surface Direct Cell Adhesion and Process Outgrowth of Primary Neurons of the Central Nervous System" (1998) Published in J. Biomed. Mater. Res. 42: 13-19
J	Tai, Hsin-Chien et al. "Neurite Outgrowth and Growth Cone Morphology on Micropatterned Surfaces" (1998) Published in Biotechnol. Prog. 14: 364-370
K	Litke, A.M. "The Retinal Readout System: A Status Report" (1999) Nuclear Instruments and Methods in Physics Research A 435: 242-249
L	Bernard, Andre et al. "Printing Patterns of Proteins" (1998) Published in Langmuir Vol. 14: 1-5
M	Chow, Alan. "Implantation of Silicon Chip Microphotodiode Arrays into the Cat Subretinal Space." (2001) Published in IEEE Vol. 9: 86-95
N	Mayne, A.H. "Biologically Interfaced Porous Silicon Devices" (2000) Published in Phys. Stat. Sol. 182: 505-513
O	Fishman, H.A. "The Artificial Synapse Chip: A Novel Interface for a Retinal Prosthesis Based on Neurotransmitter Stimulation and Nerve Regeneration" (2002) Published in ARVO

**EXAMINER**

**DATE CONSIDERED**

\* **EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.